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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/560,588 | 12/12/2005 | George Marmaropoulos | US030177US | 7162 |
| 24737 7590 08/29/2007 PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510 | | | EXAMINER TSUKERMAN, LARISA Z | |
| | | | ART UNIT 2833 | PAPER NUMBER |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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|------------------------------|--|---|--|
| Office Action Summary | Application No. 10/560,588 | Applicant(s) MARMAROPOULOS ET AL. | |
| | Examiner Larisa Z. Tsukerman | Art Unit 2833 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 12/12/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-13 and 15 is/are rejected.
- 7) ☒ Claim(s) 9, 14, 16 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities:

On page 3, line 13, change "24" to – 22 --;

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1 – 5, 8 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Massey et al. (2002/0089399, now is patent 6,645,008).

In regard to claim 1, Massey et al. disclose a fabric interconnect 10 for use to interconnect a garment (not shown) having fabric electrodes 12, 16, 13 and an electronics enclosure 30 having a conductive area 35/36 on its outer surface 33, 34 that

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is connected to a circuit (see Fig.10, a capacitor), the fabric interconnect 10 comprising: a portion (not marked, see Fig.6) of the garment (not shown) including a first inner surface (see Fig.6, and Col.6, lines 21-26), which is substantially electrically conductive, coupled to the fabric electrodes 13; and a second inner surface (see Fig.6, and Col.6, lines 21-26) that is substantially electrically non-conductive 34, wherein the first inner surface and the second inner surface are seamlessly (gluing) manufactured to form a chamber (not marked, formed by layers 12, 16 and neck 17; also see Col.5, lines 3-7), and wherein when the electronics enclosure 30 is inserted into the chamber in a predetermined position, causes the conductive area of the electronics enclosure 30 and the first inner surface (see Fig.6, and Col.6, lines 21-26) to make contact and form an interconnection between the fabric electrodes of the garment and the circuit.

In regard to claim 2, Massey et al. disclose a force is applied to the chamber 12, 16, 17 to position the electronics enclosure 30 to the predetermined position, as claimed.

In regard to claim 3, Massey et al. disclose a force is applied to the electronics enclosure 30 to position the electronics enclosure to the predetermined position, as claimed.

In regard to claim 4, Massey et al. disclose the first 12 and second 16 inner surfaces are flexible (fabric is flexible).

In regard to claim 5, Massey et al. disclose the first and second inner surfaces are elastic (fabric is elastic).

In regard to claim 8, Massey et al. disclose the force is an insertion or retraction force between the electronics enclosure and the seamless chamber.

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In regard to claim 11, Massey et al. disclose an electronics enclosure 30 for use with a fabric interconnect 10 in a garment having fabric electrodes 12 and 13 (see Col.3, lines 53, 65-66), the electronics enclosure comprising: a casing 32, 34 including a substantially electrically conductive area 36, 35; and a circuit coupled to the conductive area (see Fig.10, capacitor), wherein the conductive area 35, 36 is configured to be inserted into a seamless (gluing) chamber (not marked, formed by layers 12, 16 and neck 17; also see Col.5, lines 3-7) of the fabric interconnect, in a predetermined position, and causes the conductive area 35, 36 of the electronics enclosure 30 and a conductive inner surface (see Fig.6, and Col.6, lines 21-26) of the seamless chamber 12, 16, 17 of the fabric interconnect 10 to make contact and form an interconnection between the fabric electrodes of the garment and the circuit.

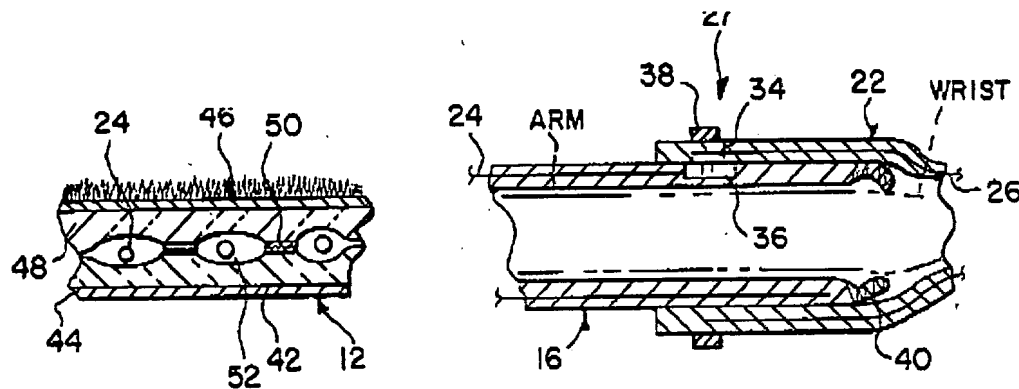
Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Nash et al. (4777344).

In regard to claim 1, Nash et al. disclose a fabric interconnect (not marked, see Fig.4) for use to interconnect a garment 22 (glove) having fabric electrodes 26 and an electronics enclosure 16/10 having a conductive area 24/36 on its outer surface that is connected to a circuit (see Fig.1), the fabric interconnect comprising: a portion (not marked, see Fig.4) of the garment 22 including a first inner surface FIS26 (see Attachment), which is substantially electrically conductive, coupled to the fabric electrodes 26; and a second inner surface that is substantially electrically non-conductive 34, wherein the first inner surface FIS and the second inner surface 34 are

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seamlessly manufactured to form a chamber C, and wherein when the electronics enclosure 16/10 is inserted into the chamber C in a predetermined position, causes the conductive area of the electronics enclosure 24/27 and the first inner surface FIS26/27 to make contact and form an interconnection between the fabric electrodes of the garment and the circuit.

Attachment



a first inner surface FIS26 chamber C

In regard to claim 2, Nash et al. disclose a force is applied to the chamber to position the electronics enclosure to the predetermined position, as claimed.

In regard to claim 3, Nash et al. disclose a force is applied to the electronics enclosure to position the electronics enclosure to the predetermined position, as claimed.

In regard to claim 4, Nash et al. disclose the first 26 and second inner surfaces 24 are flexible (fabric is flexible).

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In regard to claim 5, Nash et al. disclose the first and second inner surfaces are elastic (fabric is elastic).

In regard to claim 8, Nash et al. disclose the force is an insertion or retraction force between the electronics enclosure and the seamless chamber.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Massey et al. (2002/0089399, now is patent 6,645,008).

In regard to claim 6, Massey et al. disclose most of invention except for that the chamber has a tube-like shape. As best as can be understood at this time, the chamber having a tube-like shape, absent any criticality, is only considered to be an obvious modification of the shape of the chamber disclosed by Massey et al., as the courts have held that a change in shape or configuration, without any criticality, is within the level of skill in the art as the particular shape claimed by applicant is nothing more than one of numerous shapes that a person having ordinary skill in the art will find obvious to provide using routine experimentation based on its suitability for the intended use of the invention. See *In re Dailey*, 149USPQ 47 (CCPA 1976).

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In regard to claim 10, Massey et al. disclose most of invention except for that the electronics enclosure is a portion of a Heart Rate Monitor. It has been held that a recitation with respect to the manner or method in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. See Ex parte Wikdahl, 10 USPQ2d 1546, 1548 (Bd. Pat. App. & Inter. 1989); Ex parte Masham, 2 USPQ2d 1647, 1648 (Bd. Pat. App. & Inter. 1987); In re Casey, 370 F.2d 576, 152 USPQ 235, 238 (CCPA 1967); see also M.P.E.P. § 2111.02. A process or environment of use limitation in an apparatus claim will not patentably distinguish the claim from the prior art unless it somehow imposes a structural limitation.

“Intended use must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art.” M.P.E.P. § 2111.02 (citing In re Casey, 152 USPQ 235 (CCPA 1967) and In re Otto, 136 USPQ 458, 459 (CCPA 1963)).

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Massey et al. (2002/0089399, now is patent 6,645,008) in view of Wada et al. (5975

In regard to claim 7, Massey et al. disclose most of invention except for the force is a rotating force. However, Wada et al. teach that the connection pin 22 has a non-conductive stem and a connection pattern provided on the non-conductive stem. The connection pattern extends in the axial direction of the connection pin and electrically connects two conductive patterns provided on different insulation layers at the same circumferential position in the through-hole, by

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bringing the conductive patterns into contact at positions which are axially different and circumferentially the same. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply rotation force to the electronic disclose of Massey et al., as taught by Wada et al., in order to provide a wiping action between connecting portions for better electrical connection, and mechanically secure the electronic disclose in the place.

Claims 12, 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Massey et al. (2002/0089399, now is patent 6,645,008) in view of Brady (5390433).

In regard to claim 12, Massey et al. disclose most of invention except for the electronics enclosure 30 including an indicator to indicate a functionality of the electronics enclosure. However, Brady teaches an indicator (a lens 32 for a power-on indicator lamp (not shown)). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include indicator of Brady in structure of Massey in order to provide guarantee for good reliable electrical connection.

In regard to claim 13, Massey et al. modified by Brady, disclose the indicator is a display.

In regard to claim 15, Massey et al. disclose that the electronics enclosure corresponds to a predetermined position in the seamless chamber.

Allowable Subject Matter

Claims 9, 14, 16 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: patentability regarding claims 14, 16 and 17 resides, at list in part, in the fabric interconnect, wherein an electrically conductive area is a plurality of electrically conductive areas, and further including a plurality of electrically non-conductive areas on the casing and each of the plurality of electrically conductive areas is aligned with one of the plurality of electrically non-conductive areas, in combination of the other limitations of the base claim.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Larisa Z. Tsukerman whose telephone number is (571)-272-2015. The examiner can normally be reached on Monday through Friday from 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on (571)-272-2800 ex. 33. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LT, 08/20/2007

Brigitte Hammond
BRIGGITTE HAMMOND
PRIMARY EXAMINER